

REMARKS

The drawings are objected to by the Examiner because of the inclusion of extraneous written subject matter therein, improperly including more than one view per figure, and failure to include proper cross-hatching. It is believed the enclosed corrected drawings address these concerns and put the drawings in proper condition for allowance.

In the specification, the Examiner objected to a grammatical error in the abstract and an informality in the description. Applicant appreciates the Examiner's suggestions and has corrected these errors accordingly.

Rejection of Claims 6-9 and 14-16 Under 35 U.S.C. 112, Second Paragraph

The Examiner has rejected claims 6-9 and 14-16 under 35 U.S.C. 112, second paragraph. Applicant has amended the language identified by the Examiner as indefinite in claims 6-9 and 14-16 and believes that the rejections have been overcome.

Rejection of Claims Under 35 U.S.C. 102 and 103

Claims 1, 6-9 and 14-16 have been amended, claims 3 and 17-21 have been canceled, and claims 22 to 28 have been added. As a result, claims 1-2, 4-16 and 22-28 are pending.

The Examiner has rejected the claims as being anticipated by, or as being obvious in view of U.S. Patent 5,522,934 ("Suzuki") and U.S. Patent 6,446,572 ("Brcka") either alone or in combination with other patents.

The Examiner rejected the claims in view of Suzuki referencing Figures 18 and 19 of Suzuki which show an antenna member 106 inside the processing vessel with an antenna protecting cover 138 (which the Examiner refers to as a plasma shaping member). This

arrangement is used by Suzuki to decrease the interval between the antenna and the susceptor and generate a plasma efficiently at low plasma.

Independent claim 1 has been amended to clarify that the induction coil is outside of the processing chamber. This allows a plasma generated within the chamber to be shaped and can shield the center of the wafer from high temperature electrons generated near the coil at the periphery of the chamber. See page 7, lines 7-11 of the present application. Suzuki does not teach or suggest this configuration. Suzuki teaches bringing the coils into the chamber and closer to the center, and thereby teaches away from using an induction coil outside of the chamber and a separate plasma shaping member in the chamber.

The Examiner rejected the claims in view of Breka referencing a shield 48 and anode assembly 50. The shield is preferably a material with a high electrical conductivity, such as copper or aluminum, and may be grounded. See col. 6, lines 12-16. The anode assembly may have the same composition and is used to generate a capacitively coupled plasma. See col. 6, lines 50-53 and 60-62.

Independent claim 1 has been amended to clarify that the electrical potential of the plasma shaping member is floating. Providing an electrically floating potential during processing is one of the mechanisms by which the plasma shaping member can remove ions from the chamber and shape the plasma. See page 6, lines 21-26 of the present application. Since the elements 48 and 50 provide a shield and anode assembly, Breka teaches away from using these elements as an electrically floating plasma shaping member as set forth in claim 1.

In view of the above, it is believed that claim 1 is patentable over Suzuki and Breka. Claims 2, 44-16, 23, 25., and 27 depend from claim 1 and therefore are also believed patentable.

New independent claim 22 has been added. Claim 22 is directed at the arrangement of an electrically floating shaping member in embodiments of the present application so that it provides an obstacle to diffusion of high temperature electrons from a region between the portion of the plasma shaping member and at least a portion of the induction coil. Neither Suzuki nor Brcka teaches the combination of elements required in independent claim 22. Accordingly, it is believed that claim 22 is patentable over Suzuki and Brcka. Claims 24 and 26 depend from claim 22 and therefore are also believed patentable.

CONCLUSION

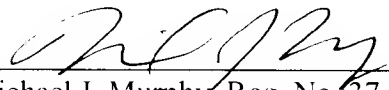
It is believed that the present application is in condition for allowance, and such action is respectfully requested.

The Commissioner is authorized to charge any additional fees which may be required, including petition fees and extension of time fees, to Deposit Account No. 23-2415 (Docket No. 14912.736).

Respectfully submitted,

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